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PATENT ABSTRACTS OF JAPAN

(11)Publication number : 08-211357

(43)Date of publication of application : 20.08.1996

(51)Int. Cl.

G02F 1/13
G03B 33/12

(21)Application number : 07-041358

(71)Applicant : PIONEER ELECTRON CORP

(22)Date of filing : 06.02.1995

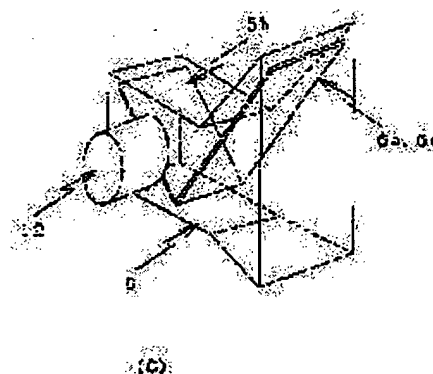
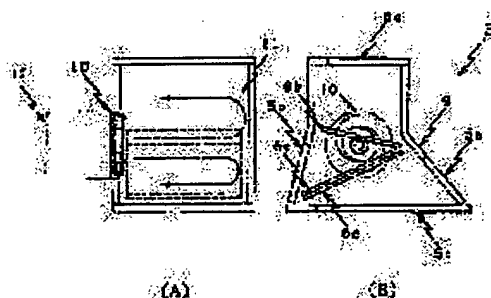
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(54) IMMERSION OPTICAL DEVICE

(57)Abstract:

PURPOSE: To eliminate the unequal temp. which is the cause for making a refractive index nonuniform by forcibly stirring the liquid in an immersion optical device by a stirrer for a polarization beam splitter immersion optical device and dichroic mirror immersion optical device to be used for a reflection type liquid crystal projection device.

CONSTITUTION: A dichroic mirror 6a for red and a dichroic mirror 6b for green are fixed into the side face parts within an optical case 9 consisting of transparent materials, such as glass, in the state of providing these dichroic mirrors with spacings to allow convection of liquid 11. The optical case 9 is formed to a perfectly hermetic structure in the state of mounting a propeller device 10 for stirring installed on the one interior side face. The liquid 11 is packed thereon. This immersion optical device is composed of such optical case and the stirrer for stirring the liquid 11 with a rotational driving device 12.



LEGAL STATUS

[Date of request for examination] 07.02.2001

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted to registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against
examiner's decision of rejection]

[Date of extinction of right]

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